

Amendments to the Claims:

1. (Currently Amended) A method comprising:
storing packet data including a packet header and a packet body within a storage element, wherein storing packet data includes:
storing said packet body within a common storage element;
storing a copy of said packet header within a unique storage element for each of ~~said~~ a plurality of output interfaces;
and
associating each of a said plurality of unique storage elements with said common storage element;
transmitting said packet data from said storage element via said plurality of output interfaces;
maintaining a transmit count value of said storage element, wherein maintaining a transmit count value includes:
initializing said transmit count value by setting said transmit count value of each of said plurality of unique storage elements equal to one less than ~~said~~ a release count value; and
incrementing said transmit count value by one in response to transmitting;
determining a said release count value of said storage element;
~~transmitting said packet data from said storage element via a plurality of output interfaces;~~

comparing said transmit count value and said release count value; and
de-allocating said storage element in response to comparing said transmit
count value and said release count value.

2. (Original) The method of claim 1, further comprising:

receiving a packet including said packet data; and

allocating said storage element in response to receiving said packet.

3-4. (Canceled)

5. (Previously Presented) The method of claim 1, wherein comparing
said transmit count value and said release count value comprises determining
whether said incremented transmit count value is equal to said release count
value, and de-allocating said storage element in response to comparing said
transmit count value and said release count value comprises de-allocating said
storage element in response to a determination that said incremented transmit
count value is equal to said release count value.

6. (Canceled)

7. (Currently amended) The method of claim 1, wherein transmitting
said packet data from said storage element via a said plurality of output
interfaces comprises transmitting said packet data from said storage element via
a plurality of line interfaces.

8. (Currently Amended) The method of claim 7, wherein transmitting said packet data from said storage element via a said plurality of line interfaces comprises transmitting said packet data from said storage element via a line interface selected from the group consisting of: an Ethernet interface, a Fast Ethernet interface, a Gigabit Ethernet interface, an OC-48/STM-16 interface, an OC-12/STM-14 interface, an OC-3/STM-1 interface, an IF Video interface, a DWDM interface, a DS-1 interface, a DS-3 interface, an E-1 interface, and an E-3 interface.

9-10. (Canceled)

11-30. (Canceled)

31. (Currently Amended) A machine-readable medium that provides instructions, which when executed by a set of one or more processors, cause said set of processors to perform operations comprising:

storing packet data including a packet header and a packet body within a storage element, wherein storing packet data within a storage element includes:

storing said packet body within a common storage element;
storing a copy of said packet header within a unique storage element for each of said a plurality of output interfaces;
and
associating each of said plurality of unique storage elements with said common storage element;

transmitting said packet data from said storage element, wherein

transmitting said packet data from said storage element includes:

transmitting said packet data from said storage element via

said plurality of output interfaces;

maintaining a transmit count value of said storage element, wherein

maintaining a transmit count value of said storage element includes:

initializing said transmit count value by setting said transmit

count value of each of said plurality of unique storage

elements equal to one less than said a release count

value; and

incrementing said transmit count value by one in response to

transmitting said packet data;

determining a said release count value of said storage element;

~~transmitting said packet data from said storage element, wherein~~

~~transmitting said packet data from said storage element includes:~~

~~transmitting said packet data from said storage element via a~~

~~plurality of output interfaces;~~

comparing said transmit count value and said release count value; and

de-allocating said storage element in response to comparing said transmit
count value and said release count value.

32. (Original) The machine-readable medium of claim 31, said operations
further comprising:

receiving a packet including said packet data; and

allocating said storage element in response to receiving said packet.

33-34. (Canceled)

35. (Previously Presented) The machine-readable medium of claim 31, wherein comparing said transmit count value and said release count value comprises determining whether said incremented transmit count value is equal to said release count value, and de-allocating said storage element in response to comparing said transmit count value and said release count value comprises de-allocating said storage element in response to a determination that said incremented transmit count value is equal to said release count value.

36. (Canceled)

37. (Currently amended) The machine-readable medium of claim 31, wherein transmitting said packet data from said storage element via a said plurality of output interfaces comprises transmitting said packet data from said storage element via a plurality of line interfaces.

38. (Currently amended) The machine-readable medium of claim 37, wherein transmitting said packet data from said storage element via a said plurality of line interfaces comprises transmitting said packet data from said storage element via a line interface selected from the group consisting of: an Ethernet interface, a Fast Ethernet interface, a Gigabit Ethernet interface, an OC-48/STM-16 interface, an OC-12/STM-14 interface, an OC-3/STM-1 interface, an

IF Video interface, a DWDM interface, a DS-1 interface, a DS-3 interface, an E-1 interface, and an E-3 interface.

39-40. (Canceled)

41. (Currently Amended) A method comprising:

storing a plurality of packet data within a plurality of storage elements,
each one of said plurality of packet data including a packet header and
a packet body, wherein storing said plurality of packet data within a
storage element comprises:

storing said packet body within a common storage element;
storing a copy of said packet header within a unique storage
element for each of ~~said~~ a plurality of output interfaces;
and
associating each of ~~a~~ said plurality of unique storage
elements with said common storage element;

transmitting each one of said plurality of packet data from said plurality of
storage elements, wherein transmitting each one of said plurality of
packet data from said plurality of storage elements comprises
transmitting each one of said plurality of packet data from one of said
plurality of storage elements via said plurality of output interfaces;

maintaining a transmit count value of each one of said plurality of storage
elements stored within each one of said plurality of storage elements
storing a plurality of packet data, wherein maintaining said transmit
count value of said plurality of storage element comprises:

initializing said transmit count value, wherein initializing said transmit count value comprises setting said transmit count value of each of said plurality of unique storage elements equal to one less than a release count value; and incrementing said transmit count value by one in response to transmitting one of said plurality of packet data; determining said release count value of each one of said plurality of storage elements; ~~transmitting each one of said plurality of packet data from said plurality of storage elements, wherein transmitting each one of said plurality of packet data from said plurality of storage elements comprises transmitting each one of said plurality of packet data from one of said plurality of storage elements via a plurality of output interfaces;~~ comparing said transmit count value and said release count value for each one of said plurality of storage elements; and de-allocating each one of said plurality of storage elements in response to comparing said transmit count value and said release count value.

42-46. (Canceled)